FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO. MICRON. 164 ( DV) APPLICATION NO. 40/121,790

INFORMATION DISCLOSURE STATEMENT

APPLICANT

BY APPLICANT

Gilton, Terry L

(USE SEVERAL SHEETS IF NECESSARY)

FILING DATE - April 10, 2002 July 14, 200 3

**GROUP** 490 Unknown

			U.S. PATENT D	OCUMENTS	٠.	• :	- <del></del> -	
EXAMINER INITIAL	DOCUMENT NUMBER	DATE		NAME		CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE)
Le	5,761,115	6/2/1998	Kozicki, et al.					
Lu	5,896,312	4/20/1999	Kozicki, et al.					
Lu	5,914,893	6/22/1999	Kozicki, et al.					
Le	6,084,796	07/04/00	Kozicki, et al.		<del> </del>			
				- <del> </del>	<del></del>			<del></del>

·			FOREIGN PATENT DOCUMENTS				
EXAMINER	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANS	LATION
INITIAL						YES	NO
Lu	WO 00/48196	08/17/00	wo				1
(h	WO 02/21542 A1	03/14/02	wo				

EXAMINER INITIAL	OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)
	P. Boolchand, et al., "Mobile Silver Ions and Glass Formation in Solid Electrolytes" Nature, Vol. 410, April 2001, pp. 1070-1073
	Y. Hirose, et al., "High Speed Memory Behavior and Reliability of an Amorphous As2S3 Film Doped With Ag" Physica Status Solidi Vol. (a), No. 16, (198 K187-K190
* 1	Y. Hirose, et al., "Polarity-Dependent Memory Switching and Behavior of Ag Dendrite in Ag-Photodoped Amorphous As2-s3 Films" J. Appl. Phys. Vol. 4 No. 6, June 1976 pp. 2767-2772
	A. V. Kolobov, et al., "Photodoping of Amorphous Chalcogenides by Metals" Advances in Physics 1991, Vol. 40, No. 5, pp. 625-684
	M. Mitkova, et al., "Dual Chemical Role of Ag as an Additive in Chalcogenide Glasses" Physical Review Letters Vol. 83, No. 19, pp. 3748-3851
	K. L. Tal. et al., "Bilevel High Resolution Photolithographic Technique For Use With Waters Stepped and/or Reflecting Surfaces" J. Vac. Sci. Technol. Vol. 16, No. 6, Nov/Dec 1979 pp. 1977-1979
GC.	K. L. Tai, et al., "Inorganic Resist Systems for VLSI Microlithography" pp. 9-35
	K. L. Tai, et al., "Submicron Optical Lithography Using an Inorganic Resist/Polymer Bilevel Scheme" J. Vac. Sci. Technol. Vol. 17, No. 5, Sept/Oct 1980 p. 1169-1176
	A. Yoshikawa, et al., "Angstroms Resolution in Se-Ge Inorganic Photoresists" Japanese Journal of Applied Physics Vol. 20, No. 2, Feb. 1981, pp. L81-L8:
	A. Yoshikawa, et al., "Dry Development of Se-Ge Inorganic Photoresist" Appl. Phys. Lett. Vol 36, No. 1, Jan. 1980, pp. 107-109
	A. Yoshikawa, et al., "A New Inorganic Electron Resist of High Contrast" Appl. Phys. Lett. Vol. 31, No. 3, Aug. 1977, pp. 161-163
MSO 3145	A. Yoshikawa, et al., "A Novel Inorganic Photoresist Utilizing Ag Photodoping in Se-Ge Glass Films" Appl. Phys. Lett. Vol. 29, No. 10, Nov. 15, 1976, pp. 677-679

MSO-3145.DOC:afa 070902

**EXAMINER** 

DATE CONSIDERED

\*EXAMINER: INITIAL IF CITATION CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP 809; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED, INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

		COPY			SHEET 1 OF
FORM PTO-1449	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE DISCLOSURE STATEMENT	ATTY, DOCKET NO. MICRON, 1848 DV 1		APPLICATION NO. 10/121.790 Unitrown	Pres
В	Y APPLICANT	APPLICANT Gilton, Terry L.	<del></del>	17 018)	0-7
(USE SEVERA	L SHEETS IF NECESSARY)	FILING DATE April 10, 2002. Toly 14, 2005		GROUP 2018 UN KNOWA	2823

				· U.S. PATEN	TOCUMENTS					
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	<del> </del>	NAME		CLASS	SUBCLASS	FILIN (IF APPE	IG DATE ROPRIATE)
Pu		6,348,365	02/19/02		Moore, et al.					<del></del>
1/20		6,418,049	07/09/02		Kozicki, et al.					·
						<del></del>	-			<del></del>
			<u> </u>						<del></del>	
	لبل			<u> </u>			!			<del></del>
· . ·				FOREIGN PATE	ENT DOCUMENTS	·		· · · · ·	•	· ·
EXAMINER		DOCUMENT NUMBER	DATE	1	COUNTRY		CLASS	SUBCLASS	TRAN	SLATION
INITIAL									YES	NO:
			1.							
1					/					
EXAMINER INITIAL		οπ	HER DOCUMI	ENTS (INCLUDING	AUTHOR, TITLE, DAT	E, PERTINENT	PAGES.	ETC.)		
	$\vdash$		·			<u> </u>	<del></del> .	<del></del>	· · · ·	<del></del>
			· <del></del> .				<del></del>	1	<del></del>	·
	H		<del></del>	<del></del>		<del></del>	<del>-:</del>	<del> ,</del>	11	<del></del>
<del></del>	1			$\overline{}$	<del>/</del>	<del></del>	<del></del>	<del></del>	<del></del>	<del></del> -
			<del> </del>		· <u>··</u> ·································	<del></del>	<del></del>			
	H				<del></del>	<del></del>	<del></del>	4 97 - 4 - 24		
	$\vdash$		<del>`/</del>	<del>/</del>	<del> </del>	<del></del>	<del></del>		<del>, ;</del>	·
	$\vdash$		-/-	<del></del>		<del></del>			·	<del></del>
<del></del>	$\vdash \vdash$	<del> :</del>	/	· · · ·	<del></del>	<del></del>		<del></del>	· · ·	<del></del>
<del></del>	H	·	<del></del>	<del></del>	<del></del>	<del></del>	<del>- : · ·</del>	<u> </u>		<del></del>
<del></del>			<del></del>		<del></del>	<del></del>		<del> </del>	•	
	1 1	,								

MSO-3448.DOC:afa 090602

EXAMINER	Sei	Men	Neo	 DATE CONSIDERED	2	12/	14
				 			7

\*EXAMINER: INITIAL IF CITATION CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP 509; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED, INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.



FORM PTO-1449

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

INFORMATION DISCLOSURE STATEMENT

(USE SEVERAL SHEETS IF NECESSARY)

BY APPLICANT

ATTY. DOCKET NO. MICRON.164# OM APPLICATION NO. 10/121,790

Ontergue

APPLICANT Gilton, Terry L.

FILING DATE April 10, 2002 JULY 14, 2003

2018 VALORAMA

		<u> </u>			2010	/15.44-C		ピン
·						.: .		
4.1				U.S. PATENT DOCUMENTS				
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING (IF APPR	DATE OPRIATE
The		6,487,106	11/26/02	Kozicki			<i>i</i> '	
1		2002/0168820	11/14/02	Kozicki, et al.				
$\mathcal{T}$		2002/0190350	12/19/02	Kozicki, et al.				
		2003/0035314	02/20/03	Kozicki				·
		2003/0035315	02/20/03	Kozicki				
Lie		2003/0048519	03/13/03	Kozicki				
<del></del>	٠.							
\		· · ·						
				CODE OF THE CONTRACT OF THE CO		<del>-</del> -		
···	1 - 1	· · · · · · · · · · · · · · · · · · ·	<del>,</del>	FOREIGN PATENT DOCUMENTS	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS		LATION
		·	<u> </u>		ļ		YES	NO
	$\sqcup$				<del> </del>		· ·	<del> </del>
<u> </u>					<u>                                     </u>		· · ·	· ·
					<del> </del>	,	·	<u> </u>
· .							<u> </u>	
					ļ		· ·	<u> </u>
			4		<u> 1 ·</u>		<u></u>	Ĺ <u>.</u>
EXAMINER INITIAL	· ·	OT	HER DOCUME	ENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINEN	r PAGES,	ETC.)	<del></del>	
' HALLINYE:					<del></del>	:		
			· · · · · · · · · · · · · · · · · · ·			<del>,</del>		•
					<u> </u>	<del>-</del>		· · · · · ·

EXAMINER

DATE CONSIDERED

\*EXAMINER: INITIAL IF CITATION CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP 609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED, INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

PTO/SB/08A (10-01)

Approved for use through 10/31/2002.OMB 0651-0031

U. S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
r the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Complete if Known Substitute for form 1449A/PTO Application Number 10/618,824 INFORMATION DISCLOSURE July 14, 2003 Filing Date STATEMENT BY APPLICANT First Named Inventor Terry L. Gilton Art Unit (use as many sheets as necessary) Examiner Name Not Yet Assigned of 12 M4065.1006/P1006-A 1 Attorney Docket Number Sheet

<u> </u>			U.S. PA	TENT DOCUMENTS	
Examiner Initials*	Cite No.1	Document Number  Number-Kind Code <sup>2</sup> (il known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
V-22	AA	2002/0000666	1/2002	Kozicki et al.	
عبه	AB	2002/0072188	6/2002	Gilton	
4 *	AC	2002/0106849	08/2002	Moore	
	AD	2002/0123169	09/2002	Moore et al.	
	AE	2002/0123170	09/2002	Moore et al.	
•	AF	2002/0123248	09/2002	Moore et al.	
*	AG	2002/0127886	09/2002	Moore et al.	
•	AH	2002/0132417	09/2002	Li	
•	AI	2002/0160551	10/2002	Harshfield	
•	ĀJ	2002/0163828	11/2002	Krieger et al.	
-	AK	2002/0168852	11/2002	Harshfield et al.	
	AL	2002/0190289	12/2002	Harshfield et al.	
<del>   </del>	AM	2003/0001229	01/2003	Moore et al.	
- <del></del>	AN	2003/0027416	02/2003	Moore	
<del>   </del>	ÃO	2003/0032254	02/2003	Gilton	
<del>   </del>	AP	2003/0038301	02/2003	Moore	
-	AQ	2003/0043631	03/2003	Gilton et al.	
<b>├</b> -	AR	2003/0045049	03/2003	Campbell et al.	
1	AS	2003/0045054	03/2003	Campbell et al.	
<del>    -</del>	AT	2003/0047765	03/2003	Campbell	
1 <del>-1</del> -	AU	2003/0047772	03/2003	Li	
1	AV	2003/0047773	03/2003	Li	
1	AW	2003/0049912	03/2003	Campbell et al.	
	AX	2003/0068861	04/2003	Li	
*	AY	2003/0068862	04/2003	Li	
1	AZ	2003/0095426	05/2003	Hush et al.	
1	AA1	2003/0096497	05/2003	Moore et al.	
1	AB1	2003/0107105	06/2003	Kozicki	
1 1	AC1	2003/0117831	06/2003	Hush	
<u> </u>	AD1	2003/0128612	07/2003	Moore et al.	
1	AE1	2003/0137869	07/2003	Kozicki	
-	AF1	2003/0143782	07/2003	Gilton et al.	
1	AG1	2003/0155589	08/2003	Campbell et al.	
-	AH1	2003/0155606	08/2003	Campbell et al.	
	Al1	2003/0156447	08/2003	Kozicki	
1	AJ1	2003/0156463	08/2003	Casper et al.	
1	AK1	2003/0209728	11/2003	Kozicki et al	
1	AL1	2003/0209971	11/2003	Kozicki et al	
	AM1	2003/0210564	11/2003	Kozicki et al	
	AN1	3,622,319	11/1971	Sharp	
Ti	AO1	3,743,847	7/1973	Boland	
	AP1	4,269,935	5/1981	Masters et al.	
	AQ1	4,312,938	1/1982	Drexler, et al.	
120	AR1	4,316,946	1/1982	Masters, t al.	_L

PTO/SB/08A (10-01)

Approved for use through 10/31/2002.OMB 0651-0031

U. S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Complete if Known

INFORMATION DISCLOSURE   STATEMENT BY APPLICANT   (use as many sheets as necessary)   Info		Substitute for form 1449A/PTO					Complete if Known			
STATEMENT BY APPLICANT	l						Application Number	10/618,824		
STATEMENT BY APPLICANT  (use as many sheets as necessary)    Art Unit   N/A → → → → → → → → → → → → → → → → → → →	1						Filing Date	July 14, 2	003	
Ant Unit	S	TATE	MENT	BY A	PPLICANT	•	First Named Inventor	<del></del>		
Examiner Name   Not-Yet Assigned		6.		haada aa .			Art Unit	<del> </del>		
Sheet   2		(U	se as many s	neets as i	necessary)		Examiner Name			
AS1   4.320,191   3/1982   Yoshikawa et al.	Sheet		2	of	12		Attorney Docket Number	<del> </del>		
AT1				0'				1111000.10		
AU1 4.419.421 12/1983 Wichelhaus, et al. AV1 4.499.557 2/1985 Holmberg et al. AV1 4.671.618 06/1987 Wu et al. AV1 4.795.657 1/1989 Formigoni et al. AV1 4.800.526 01/1989 Ewis AV1 4.800.526 01/1989 Silwa et al. AV1 4.847.674 7/1989 Silwa et al. AV2 4.847.674 7/1989 Silwa et al. AV3 5.219.788 66/1993 Abernathey et al. AV4 5.25.238.862 8/1993 Blaicok et al. AV2 5.238.862 8/1993 Nagasubramanian et al. AV2 5.272.359 12/1993 Nagasubramanian et al. AV2 5.272.359 12/1993 Nagasubramanian et al. AV2 5.315.131 5/1994 Kishimoto et al. AV2 5.315.131 5/1994 Kishimoto et al. AV3 5.350.484 9/1994 Gardner et al. AV4 5.360.981 11/1994 Owen et al. AV4 5.360.981 11/1994 Owen et al. AV4 5.500.532 3/1996 Kozicki et al. AV4 5.572.6083 3/1996 Kozicki et al. AV4 5.572.6083 3/1996 Wolf et al. AV4 5.726.083 3/1998 Wolstenholme et al. AV4 5.780.877 8/1998 Wolstenholme et al. AV4 5.780.877 8/1998 Wolstenholme et al. AV4 5.780.877 8/1998 Wolstenholme et al. AV4 5.780.777 8/1998 Wolstenholme et al. AV4 5.888.89 12/1998 Harshfield AV4 5.888.89 12/1999 Harshfield AV4 5.898.889 12/1999 Harshfield AV4 5.998.666 12/1999 Harshfield AV4 5.799.666 12/1999 Harshfield AV4 5.799.666 12/1999 Harshfield AV4 5.799.770 9/2000 Harshfield AV4 5.797.70 9/2000 Harshfield AV5 6.072.716 6/2000 Jacobson et al. AV3 6.393.804 11/2001 Chiang et al. AV3 6.393.804 11/2001 Cabrol et al. AV3 6.303.807 7/1002 Molton et al. AV3 6.303.806 12/1999 Harshfield AV3 6.303.806 12/1999 Harshfield AV4 6.007.7729 6/2000 Harshfield AV3 6.303.806 12/2002 Molton et al. AV3 6.303.806 12/2002 Molton	tee									
AV1   4.49,557   2/1985   Holmberg et al.	<b></b>									
AW1   4,671,618   06/1987   Wu et al.	1									
AX1 4/795,657   1/1989   Formigoni et al.	<del>                                     </del>									
AY1 4,800,526   01/1989   Lewis	-									
AA2 5,177,567   1/1993   Klersy et al.	•				01/1989					
AB2   5.219,788   6.11993   Abernathey et al.	*	AZ1	4,847,674							
ACC   5,238,862   81,1933   Blalock et al.	*									
ADZ   5,272,359   12/1993   Nagasubramanian et al.	1									
AEZ 5,314,772   5/1994   Kozicki										
AF2 5,315,131	<u> </u>									
AG2 5,350,484   9/1994   Gardner et al.     AH2 5,360,981   11/1994   Owen et al.     AI2 5,500,532   3/1996   Kozicki et al.     AJ2 5,512,328   4/1996   Yoshimura et al.     AJ2 5,512,328   4/1996   Wolf et al.     AK2 5,512,773   4/1996   Wolf et al.     AK2 5,751,012   5/1998   Wolstenholme et al.     AM2 5,751,012   5/1998   Wolstenholme et al.     AM2 5,759,277   8/1998   Wolstenholme et al.     AN2 5,789,277   8/1998   Wolstenholme et al.     AP2 5,818,749   10/1998   Harshfield     AP2 5,818,749   10/1998   Harshfield     AP2 5,841,150   11/1998   Harshfield     AR2 5,846,889   12/1998   Harshfield     AR2 5,869,843   2/1998   Harshfield     AY2 5,920,788   7/1999   Reinberg     AV2 5,998,066   12/1999   Reinberg     AV2 5,998,066   12/1999   Reinberg     AV2 6,072,716   6/2000   Jacobson et al.     AV2 6,077,729   6/2000   Harshfield     AV2 6,077,729   6/2000   Harshfield     AR3 6,117,720   9/2000   Harshfield     AR3 6,143,604   11/2001   Chiang et al.     AR3 6,36,695   5/2001   Wolsteinholme et al.     AR3 6,316,784   11/2001   Gabriel et al.     AR3 6,36,78,484   11/2001   Gabriel et al.     AR3 6,36,78,284   4/2002   Gonzalez et al.     AR3 6,36,78,284   4/2002   Gonzalez et al.     AR3 6,36,78,284   4/2002   Gonzalez et al.     AR3 6,36,76,284   4/2002   Gonzalez et al.     AR3 6,316,784   11/2001   Freyman et al.     AR3 6,376,284   4/2002   Gonzalez et al.     AR3 6,38,324   5/2002   Kozicki et al.     AR3 6,414,376   7/2002   Kozicki et al.     AR3 6,418,049   7/2002   Kozicki et al.     AR3 6,418,049   7/2002   Kozicki et al.     AR3 6,418,049   7/2002   Kozicki et al.     AR3 6,448,049   7/2002   Kozicki et al.	<b> </b>									
* AHZ         5,360,981         11/1994         Owen et al.           * AIZ         5,500,532         3/1996         Kozicki et al.           * AIZ         5,512,328         4/1996         Wolf et al.           * AKZ         5,512,773         4/1996         Wolf et al.           * AMZ         5,751,012         5/1998         Wolstenholme et al.           * AMZ         5,759,277         8/1998         Zahorik et al.           * ANZ         5,789,277         8/1998         Zahorik et al.           * ANZ         5,789,277         8/1998         Zahorik et al.           * ANZ         5,814,527         9/1998         Wolstenholme et al           * APZ         5,814,150         11/1998         Harshfield           * ARZ         5,841,150         11/1998         Harbison et al.           * ASZ         5,846,889         12/1998         Harshfield           * ATZ         5,869,843         2/1999         Harshfield           * AVZ         5,920,788         7/1999         Reinberg           * AVZ         5,993,066         12/1999         Block et al.           * AVZ         6,072,716         6/2000         Harshfield           * AX2         6,072,716										
* AJ2         5,500,532         3/1996         Kozicki et al.           * AJ2         5,512,328         4/1996         Yoshimura et al.           * AK2         5,512,773         4/1996         Wolf et al.           * AL2         5,726,083         3/1998         Takaishi           * AM2         5,751,012         5/1998         Wolstenholme et al.           * AM2         5,789,277         8/1998         Zahorik et al.           * AM2         5,818,749         10/1998         Harshfield           * AP2         5,818,749         10/1998         Harshfield           * AR2         5,846,889         12/1998         Harshfield           * AR2         5,866,889         12/1998         Harshfield           * AX2         5,869,843         2/1999         Harshfield           * AV2         5,998,066         12/1999         Block et al.           * AV2         5,998,066         12/1999         Block et al.           * AV2         6,077,716         6/2000         Harshfield           * AV2         6,077,729         6/2000         Harshfield           * AV3         6,177,338         1/2001         Liaw et al.           * AV3         6,143,604         11/	-	AH2	5,350,464							
• AJ2         5,512,328         4/1996         Yoshimura et al.           • AK2         5,726,083         3/1998         Takaishi           • AM2         5,751,012         5/1998         Wolstenholme et al.           • AM2         5,789,277         8/1998         Zahorik et al.           • AN2         5,789,277         8/1998         Volstenholme et al.           • AN2         5,814,527         9/1998         Wolstenholme et al.           • AP2         5,818,749         10/1998         Harshfield           • AR2         5,841,150         11/1998         Gonzalez et al.           • AR2         5,846,889         12/1998         Harshfield           • AR2         5,869,843         2/1999         Harshfield           • AV2         5,980,666         12/1998         Reinberg           • AV2         5,998,066         12/1999         Block et al.           • AV2         5,098,066         12/1999         Block et al.           • AV2         5,077,729         6/2000         Jacobson et al.           • AX2         6,077,7338         1/2001         Liaw et al.           • AR3         6,143,604         11/2000         Chiang et al.           • AR3         6,36	<del>   -</del>			****						
* AK2 5,512,773										
* AL2 5,726,083	1	AK2	5,512,773			Wolf	et al.			
* ANZ 5,789,277 8/1998 Zahorik et al.  * AOZ 5,814,527 9/1998 Wolstenholme et al  * APZ 5,818,749 10/1998 Harshfield  * AQZ 5,841,150 11/1998 Gonzalez et al.  * ARZ 5,846,889 12/1998 Harshfield  * AXZ 5,851,882 12/1998 Harshfield  * AUZ 5,920,788 7/1999 Reinberg  * AUZ 5,920,788 7/1999 Reinberg  * AUZ 5,998,066 12/1999 Block et al.  * AWZ 6,072,716 6/2000 Harshfield  * AXZ 6,072,716 6/2000 Harshfield  * AZZ 6,177,338 1/2001 Liaw et al.  * AZZ 6,177,338 1/2001 Liaw et al.  * AZZ 6,236,059 5/2001 Wolsteinholme et al.  * ACZ 6,236,059 5/2001 Wolsteinholme et al.  * ACZ 6,300,684 10/2001 Gabriel et al.  * ACZ 6,316,784 11/2001 Cabriel et al.  * ACZ 6,316,784 11/2001 Cabriel et al.  * ACZ 6,326,059 2/2002 McDaniel et al.  * ACZ 6,316,784 11/2001 Freyman et al.  * ACZ 6,388,324 5/2002 Gonzalez et al.  * ACZ 6,318,048,049 7/2002 Thakur et al.  * ACZ 6,381,048,049 7/2002 Mozolalez et al.  * ACZ 6,381,049 7/2002 Mozolalez	1	AL2	5,726,083		3/1998	Taka	iishi			
* AQ2 5,814,527 9/1998 Wolstenholme et al  * AP2 5,818,749 10/1998 Harshfield  * AQ2 5,841,150 11/1998 Gonzalez et al.  * AR2 5,846,889 12/1998 Harbison et al.  * AS2 5,851,882 12/1998 Harbison et al.  * AT2 5,869,843 2/1999 Harshfield  * AU2 5,920,788 7/1999 Reinberg  * AV2 5,998,066 12/1999 Block et al.  * AW2 6,031,287 2/2000 Harshfield  * AX2 6,072,716 6/2000 Jacobson et al.  * AX2 6,077,729 6/2000 Harshfield  * AX2 6,177,338 1/2001 Liaw et al.  * AA3 6,117,720 9/2000 Harshfield  * AB3 6,143,604 11/2000 Chiang et al.  * AB3 6,297,170 10/2001 Gabriel et al.  * AB3 6,297,170 10/2001 Gabriel et al.  * AB3 6,300,684 10/2001 Gonzalez et al.  * AB3 6,300,684 11/2001 Zahorik et al.  * AB3 6,350,679 2/2002 McDaniel et al.  * AB3 6,350,679 2/2002 McDaniel et al.  * AB3 6,391,688 5/2002 Gonzalez et al.  * AB3 6,341,376 7/2002 Thakur et al.  * AB3 6,414,376 7/2002 Thakur et al.  * AB3 6,418,049 7/2002 Mozalez et al.  * AB3 6,418,049 7/2002 Mozalez et al.  * AB3 6,418,049 7/2002 Harshfield										
* AP2         5,818,749         10/1998         Harshfield           * AQ2         5,841,150         11/1998         Gonzalez et al.           * AR2         5,846,889         12/1998         Harblson et al.           * AS2         5,851,882         12/1998         Harshfield           * AT2         5,869,843         2/1999         Harshfield           * AU2         5,920,788         7/1999         Reinberg           * AV2         5,998,066         12/1999         Block et al.           * AW2         6,031,287         2/2000         Harshfield           * AX2         6,072,716         6/2000         Jacobson et al.           * AX2         6,077,729         6/2000         Harshfield           * AX3         6,177,338         1/2001         Liaw et al.           * AX3         6,117,338         1/2001         Liaw et al.           * AX3         6,143,604         11/2000         Chiang et al.           * AX3         6,297,170         10/2001         Gabriel et al.           * AX3         6,300,684         10/2001         Gonzalez et al.           * AX3         6,316,784         11/2001         Zahorik et al.           * AX3         6,350,679										
* AQ2         5,841,150         11/1998         Gonzalez et al.           * AR2         5,846,889         12/1998         Harbison et al.           * AS2         5,851,882         12/1998         Harshfield           * AT2         5,869,843         2/1999         Harshfield           * AU2         5,920,788         7/1999         Reinberg           * AV2         5,998,066         12/1999         Block et al.           * AW2         6,072,716         6/2000         Harshfield           * AX2         6,077,729         6/2000         Jacobson et al.           * AY2         6,077,738         1/2001         Liaw et al.           * AZ2         6,177,338         1/2001         Liaw et al.           * AZ3         6,143,604         11/2000         Harshfield           * AB3         6,143,604         11/2000         Chiang et al.           * AB3         6,297,170         10/2001         Gabriel et al.           * AB3         6,300,684         10/2001         Gonzalez et al.           * AB3         6,316,784         11/2001         Zahorik et al.           * AB3         6,329,606         12/2001         Freyman et al.           * AB3         6,376,284	- *									
* AR2       5,846,889       12/1998       Harbison et al.         * AS2       5,851,882       12/1998       Harshfield         * AT2       5,869,843       2/1999       Harshfield         * AU2       5,920,788       7/1999       Reinberg         * AV2       5,998,066       12/1999       Block et al.         * AW2       6,031,287       2/2000       Harshfield         * AX2       6,072,716       6/2000       Jacobson et al.         * AY2       6,077,729       6/2000       Harshfield         * AZ2       6,177,338       1/2001       Liaw et al.         * AA3       6,117,720       9/2000       Harshfield         * AA3       6,143,604       11/2000       Chiang et al.         * AC3       0,236,059       5/2001       Wolsteinholme et al.         * AB3       6,143,604       10/2001       Gabriel et al.         * AB3       6,306,684       10/2001       Gonzalez et al.         * AB3       6,306,684       10/2001       Zahorik et al.         * AB3       6,329,606       12/2001       Freyman et al.         * AB3       6,36,76,284       4/2002       Gonzalez et al.         * AB3       6,376,284	<u>                                     </u>									
* AS2 5,851,882 12/1998 Harshfield  * AT2 5,869,843 2/1999 Harshfield  * AU2 5,920,788 7/1999 Reinberg  * AV2 5,998,066 12/1999 Block et al.  * AW2 6,031,287 2/2000 Harshfield  * AX2 6,072,716 6/2000 Jacobson et al.  * AY2 6,077,729 6/2000 Harshfield  * AZ2 6,177,338 1/2001 Liaw et al.  * AA3 6,117,720 9/2000 Harshfield  * AA3 6,117,720 9/2000 Harshfield  * AA3 6,143,604 11/2000 Chiang et al.  * AA3 6,236,059 5/2001 Wolsteinholme et al.  * AA3 6,300,684 10/2001 Gabriel et al.  * AA3 6,300,684 11/2001 Freyman et al.  * AA3 6,329,606 12/2001 Freyman et al.  * AA3 6,350,679 2/2002 McDaniel et al.  * AA3 6,376,284 4/2002 Gonzalez et al.  * AA3 6,391,688 5/2002 Kozicki et al.  * AA3 6,418,049 7/2002 Harshfield										
* AT2 5,869,843	<del>   -</del>									
AUZ 5,920,788										
AV2 5,998,066   12/1999   Block et al.     AW2 6,031,287   2/2000   Harshfield     AX2 6,072,716   6/2000   Jacobson et al.     AY2 6,077,729   6/2000   Harshfield     AZ2 6,177,338   1/2001   Liaw et al.     AA3 6,117,720   9/2000   Harshfield     AB3 6,143,604   11/2000   Chiang et al.     AC3 6,236,059   5/2001   Wolsteinholme et al.     AB3 6,300,684   10/2001   Gabriel et al.     AE3 6,300,684   11/2001   Zahorik et al.     AF3 6,316,784   11/2001   Zahorik et al.     AB3 6,329,606   12/2001   Freyman et al.     AB3 6,376,284   4/2002   Gonzalez et al.     AB3 6,376,284   4/2002   Gonzalez et al.     AB3 6,376,284   4/2002   Gonzalez et al.     AB3 6,388,324   5/2002   Kozicki et al.     AB3 6,414,376   7/2002   Thakur et al.     AB3 6,418,049   7/2002   Harshfield     AB3 6,418,049   7/2002   Harshfield     AB3 6,418,049   7/2002   Harshfield	<del>   -</del>									
AW2 6,031,287   2/2000   Harshfield     AX2 6,072,716   6/2000   Jacobson et al.     AY2 6,077,729   6/2000   Harshfield     AZ2 6,177,338   1/2001   Liaw et al.     AA3 6,117,720   9/2000   Harshfield     AB3 6,143,604   11/2000   Chiang et al.     AC3 6,236,059   5/2001   Wolsteinholme et al.     AD3 6,297,170   10/2001   Gabriel et al.     AE3 6,300,684   10/2001   Gonzalez et al.     AF3 6,316,784   11/2001   Zahorik et al.     AG3 6,329,606   12/2001   Freyman et al.     AH3 6,350,679   2/2002   McDaniel et al.     AH3 6,350,679   2/2002   McDaniel et al.     AH3 6,376,284   4/202   Gonzalez et al.     AH3 6,388,324   5/2002   Gonzalez et al.     AK3 6,391,688   5/2002   Gonzalez et al.     AK3 6,414,376   7/2002   Thakur et al.     AM3 6,418,049   7/2002   Kozicki et al.     AM3 6,418,049   7/2002   Kozicki et al.     AM3 6,418,049   7/2002   Kozicki et al.     AM3 6,418,049   7/2002   Harshfield						Bloc	k et al.			
* AY2         6,077,729         6/2000         Harshfield           * AZ2         6,177,338         1/2001         Liaw et al.           * AA3         6,117,720         9/2000         Harshfield           * AB3         6,143,604         11/2000         Chiang et al.           * AC3         6,236,059         5/2001         Wolsteinholme et al.           * AD3         6,297,170         10/2001         Gabriel et al.           * AE3         6,300,684         10/2001         Gonzalez et al.           * AF3         6,316,784         11/2001         Zahorik et al.           * AG3         6,329,606         12/2001         Freyman et al.           * AH3         6,350,679         2/2002         McDaniel et al.           * AI3         6,376,284         4/2002         Gonzalez et al.           * AJ3         6,388,324         5/2002         Kozicki et al.           * AK3         6,391,688         5/2002         Gonzalez et al.           * AL3         6,414,376         7/2002         Thakur et al.           * AM3         6,420,725         7/2002         Harshfield		AW2	6,031,287			Hars	hfield			
* AZ2 6,177,338       1/2001       Liaw et al.         * AA3 6,117,720       9/2000       Harshfield         * AB3 6,143,604       11/2000       Chiang et al.         * AC3 6,236,059       5/2001       Wolsteinholme et al.         * AD3 6,297,170       10/2001       Gabriel et al.         * AE3 6,300,684       10/2001       Gonzalez et al.         * AF3 6,316,784       11/2001       Zahorik et al.         * AG3 6,329,606       12/2001       Freyman et al.         * AH3 6,350,679       2/2002       McDaniel et al.         * AI3 6,376,284       4/2002       Gonzalez et al.         * AJ3 6,388,324       5/2002       Kozicki et al.         * AK3 6,391,688       5/2002       Gonzalez et al.         * AL3 6,414,376       7/2002       Thakur et al.         * AM3 6,418,049       7/2002       Kozicki et al.         * AN3 6,420,725       7/2002       Harshfield	1	AX2	6,072,716		<del></del>		<del></del>			
* AA3       6,117,720       9/2000       Harshfield         * AB3       6,143,604       11/2000       Chiang et al.         * AC3       6,236,059       5/2001       Wolsteinholme et al.         * AD3       6,297,170       10/2001       Gabriel et al.         * AE3       6,300,684       10/2001       Gonzalez et al.         * AF3       6,316,784       11/2001       Zahorik et al.         * AG3       6,329,606       12/2001       Freyman et al.         * AH3       6,350,679       2/2002       McDaniel et al.         * AI3       6,376,284       4/2002       Gonzalez et al.         * AJ3       6,388,324       5/2002       Kozicki et al.         * AK3       6,391,688       5/2002       Gonzalez et al.         * AL3       6,414,376       7/2002       Thakur et al.         * AM3       6,418,049       7/2002       Kozicki et al.         * AN3       6,420,725       7/2002       Harshfield						<del></del>				
* AB3 6,143,604       11/2000       Chiang et al.         * AC3 6,236,059       5/2001       Wolsteinholme et al.         * AD3 6,297,170       10/2001       Gabriel et al.         * AE3 6,300,684       10/2001       Gonzalez et al.         * AF3 6,316,784       11/2001       Zahorik et al.         * AG3 6,329,606       12/2001       Freyman et al.         * AH3 6,350,679       2/2002       McDaniel et al.         * AI3 6,376,284       4/2002       Gonzalez et al.         * AJ3 6,388,324       5/2002       Kozicki et al.         * AK3 6,391,688       5/2002       Gonzalez et al.         * AL3 6,414,376       7/2002       Thakur et al.         * AM3 6,418,049       7/2002       Kozicki et al.         * AN3 6,420,725       7/2002       Harshfield	1									
* AC3       6,236,059       5/2001       Wolsteinholme et al.         * AD3       6,297,170       10/2001       Gabriel et al.         * AE3       6,300,684       10/2001       Gonzalez et al.         * AF3       6,316,784       11/2001       Zahorik et al.         * AG3       6,329,606       12/2001       Freyman et al.         * AH3       6,350,679       2/2002       McDaniel et al.         * AI3       6,376,284       4/2002       Gonzalez et al.         * AJ3       6,388,324       5/2002       Kozicki et al.         * AK3       6,391,688       5/2002       Gonzalez et al.         * AL3       6,414,376       7/2002       Thakur et al.         * AM3       6,418,049       7/2002       Kozicki et al.         * AN3       6,420,725       7/2002       Harshfield	<del>                                     </del>									
* AD3 6,297,170       10/2001       Gabriel et al.         * AE3 6,300,684       10/2001       Gonzalez et al.         * AF3 6,316,784       11/2001       Zahorik et al.         * AG3 6,329,606       12/2001       Freyman et al.         * AH3 6,350,679       2/2002       McDaniel et al.         * AI3 6,376,284       4/2002       Gonzalez et al.         * AJ3 6,388,324       5/2002       Kozicki et al.         * AK3 6,391,688       5/2002       Gonzalez et al.         * AL3 6,414,376       7/2002       Thakur et al.         * AM3 6,418,049       7/2002       Kozicki et al.         * AN3 6,420,725       7/2002       Harshfield	<del>   </del>									
* AE3 6,300,684       10/2001       Gonzalez et al.         * AF3 6,316,784       11/2001       Zahorik et al.         * AG3 6,329,606       12/2001       Freyman et al.         * AH3 6,350,679       2/2002       McDaniel et al.         * AI3 6,376,284       4/2002       Gonzalez et al.         * AJ3 6,388,324       5/2002       Kozicki et al.         * AK3 6,391,688       5/2002       Gonzalez et al.         * AL3 6,414,376       7/2002       Thakur et al.         * AM3 6,418,049       7/2002       Kozicki et al.         * AN3 6,420,725       7/2002       Harshfield	<del>   </del>									
' AF3       6,316,784       11/2001       Zahorik et al.         ' AG3       6,329,606       12/2001       Freyman et al.         ' AH3       6,350,679       2/2002       McDaniel et al.         ' AI3       6,376,284       4/2002       Gonzalez et al.         ' AJ3       6,388,324       5/2002       Kozicki et al.         ' AK3       6,391,688       5/2002       Gonzalez et al.         ' AL3       6,414,376       7/2002       Thakur et al.         () AM3       6,418,049       7/2002       Kozicki et al.         () AN3       6,420,725       7/2002       Harshfield	<del>   </del>								1	
*       AG3       6,329,606       12/2001       Freyman et al.         *       AH3       6,350,679       2/2002       McDaniel et al.         *       AI3       6,376,284       4/2002       Gonzalez et al.         *       AJ3       6,388,324       5/2002       Kozicki et al.         *       AK3       6,391,688       5/2002       Gonzalez et al.         *       AL3       6,414,376       7/2002       Thakur et al.         *       AM3       6,418,049       7/2002       Kozicki et al.         *       AN3       6,420,725       7/2002       Harshfield	-									
Al3 6,376,284   4/2002   Gonzalez et al.     AJ3 6,388,324   5/2002   Kozicki et al.     AK3 6,391,688   5/2002   Gonzalez et al.     AL3 6,414,376   7/2002   Thakur et al.		AG3	6,329,606							
AJ3 6,388,324 5/2002 Kozicki et al.  AK3 6,391,688 5/2002 Gonzalez et al.  AL3 6,414,376 7/2002 Thakur et al.  AM3 6,418,049 7/2002 Kozicki et al.  AN3 6,420,725 7/2002 Harshfield	T								ļ	
AK3       6,391,688       5/2002       Gonzalez et al.         + AL3       6,414,376       7/2002       Thakur et al.         (*)* AM3       6,418,049       7/2002       Kozicki et al.         (*)* AN3       6,420,725       7/2002       Harshfield							<del></del>			
* AL3     6.414,376     7/2002     Thakur et al.       f* AM3     6.418,049     7/2002     Kozicki et al.       f* AN3     6.420,725     7/2002     Harshfield	$\perp \perp$						<del></del>		<del> </del>	
/*         AM3         6,418,049         7/2002         Kozicki et al.           */**         AN3         6,420,725         7/2002         Harshfield	<del>                                     </del>					+				
7/2002 Harshfield										
	11.									
	Att						<del></del>			

PTO/SB/08A (10-01)
Approved for use through 10/31/2002.0MB 0551-0031
U. S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Complete if Known
Application Number 10/618,824 July 14, 2003 STATEMENT BY APPLICANT First Named Inventor Terry L. Gilton NA 2823 Art Unit (use as many sheets as necessary) Examiner Name Not Yet Assigned H. M4065.1006/P1006-A Sheet 3 of 12 Attorney Docket Number AP3 6,440,837 8/2002 Harshfield AQ3 6,469,364 10/2002 Kozicki Ignatiev et al. AR3 6,473,332 10/2002

OFE OR ME	.89	the Paperwork Reduction /	Act of 199	5, no persons are required to res	U. S. Patent and Tradem	PTO/SB/08A (10-01) oved for use through 10/31/2002.OMB 0651-0031 ark Office: U.S. DEPARTMENT OF COMMERCE nation unless it contains a valid OMB control number.
A THANK	Sub	stitute for form 1449A/PT	0			Complete If Known
					Application Number	10/618,824
		-		SCLOSURE	Filing Date	July 14, 2003
	S	STATEMENT	BY A	APPLICANT	First Named Inventor	Terry L. Gilton
		(use as many :	sheets as	s necessarv)	Art Unit	N/A-2823
		,			Examiner Name	Not Yet Assigned H. Lee
	Sheet	4	of	12	Attorney Docket Number	M4065.1006/P1006-A

	FOREIGN PATENT DOCUMENTS										
Examiner	Cite	Foreign Patent Document	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant	$\Box$					
Initials*	No.1	Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)	MM-DD-YYYY	Applicant of Cited Document	Passages or Relevant Figures Appear	Τ⁴					
Ta	BA	JP-56126916	10/1981	Akira et al.							
1/m	ВВ	WO 97/48032	12/18/1997	Kozicki et al.							
7	BC	WO 99/28914	06/10/1999	Kozicki et al.							

				1		
Examiner	// ١	m1		,	Date	2/2/2/
Signature	Klizen	Min	J.	00 /	Considered	27/02/04
	1 4000	277	$\nabla$			<del></del>

<sup>\*</sup>EXAMINER: Initial if reference considered whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant

<sup>&</sup>lt;sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See attached Kinds Codes of USPTO Patent Documents at <a href="https://www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the application number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as Indicated on the document under WIPO Standard ST. 16 If possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08B (10-01)

Approved for use through 10/31/2002.OMB 0651-0031

U. S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

A TRADE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

	Substitute for form 1449B/	210			Complete if Known
		. •		Application Number	10/618,824
	INFORMATION	ON DIS	SCLOSURE	Filing Date	July 14, 2003
	STATEMENT	ΓBY A	PPLICANT	First Named Inventor	Terry L. Gilton
				Group Art Unit	N/A 2823
	(use as many	sheets as	necessary)	Examiner Name	Not Yet Assigned H. Lee
She	et 5	of	12	Attorney Docket Number	M4065.1006/P1006-A

		OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS	_
Examiner nitials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, page(s), volume-issue number(s), publisher, city and/or country where published.	₹2
Tie.	CA	Abdel-All, A.; Elshafie, A.; Elhawary, M.M., DC electric-field effect in bulk and thin-film Ge5As38Te57 chalcogenide glass, Vacuum 59 (2000) 845-853.	
1	СВ	Adler, D.; Moss, S.C., Amorphous memories and bistable switches, J. Vac. Sci. Technol. 9 (1972) 1182-1189.	
1/1	СС	Adler, D.; Henisch, H.K.; Mott, S.N., The mechanism of threshold switching in amorphous alloys, Rev. Mod. Phys. 50 (1978) 209-220.	
/ /	CD	Afffi, M.A.; Labib, H.H.; El-Fazary, M.H.; Fadel, M., Electrical and thermal properties of chalcogenide glass system Se75Ge25-xSbx, Appl. Phys. A 55 (1992) 167-169.	
	CE	Afffi,M.A.; Labib, H.H.; Fouad, S.S.; El-Shazly, A.A., Electrical & thermal conductivity of the amorphous semiconductor GexSe1-x, Egypt, J. Phys. 17 (1986) 335-342.	
7	CF	Alekperova, Sh.M.; Gadzhieva, G.S., Current-Voltage characteristics of Ag2Se single crystal near the phase transition, Inorganic Materials 23 (1987) 137-139.	
//,	CG	Aleksiejunas, A.; Cesnys, A., Switching phenomenon and memory effect in thin-film heterojunction of polycrystalline selenium-silver selenide, Phys. Stat. Sol. (a) 19 (1973) K169-K171.	
· · //	СН	Angell, C.A., Mobile ions in amorphous solids, Annu. Rev. Phys. Chem. 43 (1992) 693-717.	
1	CI	Aniya, M., Average electronegativity, medium-range-order, and ionic conductivity in superionic classes. Solid state Ionics 136-137 (2000) 1085-1089.	
1	CJ	Asahara, Y.; Izumitani, T., Voltage controlled switching in Cu-As-Se compositions, J. Non-Cryst. Solids 11 (1972) 97-104.	
/  ,	СК	Asokan, S.; Prasad, M.V.N.; Parthasarathy, G.; Gopal, E.S.R., Mechanical and chemical thresholds in IV-VI chalcogenide glasses, Phys. Rev. Lett. 62 (1989) 808-810	
7.1	CL	Axon Technologies Corporation, TECHNOLOGY DESCRIPTION: Programmable Metalization Cell(PMC), pp. 1-6 (Pre-May 2000).	
1	СМ	Baranovskii, S.D.; Cordes, H., On the conduction mechanism in ionic glasses, J. Chem. Phys. 111 (1999) 7546-7557.	
7	CN	Belin, R.; Taillades, G.; Pradel, A.; Ribes, M., Ion dynamics in superionic chalcogenide glasses: complete conductivity spectra, Solid state Ionics 136-137 (2000) 1025-1029.	
//	СО	Belin, R.; Zerouale, A.; Pradel, A.; Ribes, M., Ion dynamics in the argyrodite compound Ag7GeSe5I: non-Arrhenius behavior and complete conductivity spectra, Solid State Ionics 143 (2001) 445-455.	
7	СР	Benmore, C.J.; Salmon, P.S., Structure of fast ion conducting and semiconducting glassy chalcogenide alloys, Phys. Rev. Lett. 73 (1994) 264-267.	
11	ca	Bernede, J.C., Influence du metal des electrodes sur les caracteristiques courant-tension des structures M-Ag2Se-M, Thin solid films 70 (1980) L1-L4.	
11	CR	Bernede, J.C., Polarized memory switching in MIS thin films, Thin Solid Films 81 (1981) 155-160.	
71	cs	Bernede, J.C., Switching and silver movements in Ag2Se thin films, Phys. Stat. Sol. (a) 57 (1980) K101-K104.	
77	СТ	Bernede, J.C.; Abachi, T., Differential negative resistance in metal/insulator/metal structures with an upper bilayer electrode, Thin solid films 131 (1985) L61-L64.	
7	CU	Bernede, J.C.; Conan, A.; Fousenan't, E.; El Bouchairi, B.; Goureaux, G., Polarized memory switching effects in Ag2Se/Se/M thin film sandwiches, Thin solid films 97 (1982) 165-171.	
11:	cv	Bernede, J.C. et al., Transition from S- to N-type diff rential negative resistance in Al-Al2O3-Ag2-xSe1+x thin film structur s, Phys.Stat. Sol. (a) 74 (1982) 217-224.	Γ

OF BA	À	he Paperwork Reduction Act	of 1995	5, no persons are required to res	U. S. Patent and Tradem	PTO/SB/08B (10-01) oved for use through 10/31/2002.OMB 0651-0031 ark Office: U.S. DEPARTMENT OF COMMERCE tation unless it contains a valid OMB control number.
(11)		bstitute for form 1449B/PTC	)			Complete if Known
					Application Number	10/618,824
	11	<b>IFORMATION</b>	1 DI	SCLOSURE	Filing Date	July 14, 2003
	l s	TATEMENT I	BY $\lambda$	APPLICANT	First Named Inventor	Terry L. Gilton
			- ′ •		Group Art Unit	N/A-2827
		(use as many sh	eets as	necessary)	Examiner Name	Not Yet Assigned H. Lee
	Sheet	6	of	12	Attorney Docket Number	M4065.1006/P1006-A

	$\overline{}$		
	Jui	cw	Bondarev, V.N.; Pikhitsa, P.V., A dendrite model of current instability in RbAg4I5, Solid State lonics 70/71 (1994) 72-76.
		СХ	Boolchand, P., The maximum in glass transition temperature (Tg) near x=1/3 in GexSe1-x Glasses, Asian Journal of Physics (2000) 9, 709-72.
		CY	Boolchand, P.; Georgiev, D.G.; Goodman, B., Discovery of the Intermediate Phase in Chalcogenide Glasses, J. Optoelectronics and Advanced Materials, 3 (2001), 703
	<del>                                     </del>	CZ	Boolchand, P.; Selvanathan, D.; Wang, Y.; Georgiev, D.G.; Bresser, W.J., Onset of rigidity in
		02	steps in chalcogenide glasses, Properties and Applications of Amorphous Materials, M.F.  Thorpe and Tichy, L. (eds.) Kluwer Academic Publishers, the Netherlands, 2001, pp. 97-132.
		CA1	Boolchand, P.; Enzweiler, R.N.; Tenhover, M., Structural ordering of evaporated amorphous
not consider	/		chalcogenide alloy films: role of thermal annealing, Diffusion and Defect Data Vol. 53-54 (1987) 415-420.
	7	CB1	Boolchand, P.; Grothaus, J.; Bresser, W.J.; Suranyi, P., Structural origin of broken chemical order in a GeSe2 glass, Phys. Rev. B 25 (1982) 2975-2978.
Ja.		CC1	Boolchand, P.; Grothaus, J.; Phillips, J.C., Broken chemical order and phase separation in GexSe1-x glasses, Solid state comm. 45 (1983) 183-185.
CON MINUS	1 - ₩	CD1	Boolchand, P., Bresser, W.J., Compositional trends in glass transition temperature (Tg),
Color	1 /	33	network connectivity and nanoscale chemical phase separation in chalcogenides, Dept. of
			ECECS, Univ. Cincinnati (October 28, 1999) 45221-0030.
	/1	CE1	Boolchand, P.; Grothaus, J, Molecular Structure of Melt-Quenched GeSe2 and GeS2 glasses
		ļ	compared, Proc. Int. Conf. Phys. Semicond. (Eds. Chadi and Harrison) 17th (1985) 833-36.
	7 7	CF1	Bresser, W.; Boolchand, P.; Suranyi, P., Rigidity percolation and molecular clustering in network glasses, Phys. Rev. Lett. 56 (1986) 2493-2496.
	<b>7</b>	CG1	Bresser, W.J.; Boolchand, P.; Suranyi, P.; de Neufville, J.P, Intrinsically broken chalcogen
	/\		chemical order in stoichiometric glasses, Journal de Physique 42 (1981) C4-193-C4-196.
	7.1	CH1	Bresser, W.J.; Boolchand, P.; Suranyi, P.; Hernandez, J.G., Molecular phase separation and
	I / I	[ ••••	cluster size in GeSe2 glass, Hyperfine Interactions 27 (1986) 389-392.
	<del>/ - </del>	CI1	Cahen, D.; Gilet, JM.; Schmitz, C.; Chernyak, L.; Gartsman, K.; Jakubowicz, A., Room-
	γΛ	• • •	Temperature, electric field induced creation of stable devices in CulnSe2 Crystals, Science
	1 /\	ŀ	258 (1992) 271-274.
	<del>-/.</del> -	CJ1	Chatterjee, R.; Asokan, S.; Titus, S.S.K., Current-controlled negative-resistance behavior and
	1/1	1001	memory switching in bulk As-Te-Se glasses, J. Phys. D: Appl. Phys. 27 (1994) 2624-2627.
	<del>- / .   -</del>	01/4	
		CK1	Chen, C.H.; Tai, K.L., Whisker growth induced by Ag photodoping in glassy GexSe1-x films, Appl. Phys. Lett. 37 (1980) 1075-1077.
	1 */I =	CL1	Chen, G.; Cheng, J., Role of nitrogen in the crystallization of silicon nitride-doped
	$\perp \perp \perp \perp$		chalcogenide glasses, J. Am. Ceram. Soc. 82 (1999) 2934-2936.
		СМ1	Chen, G.; Cheng, J.; Chen, W., Effect of Si3N4 on chemical durability of chalcogenide glass, J. Non-Cryst. Solids 220 (1997) 249-253.
	<del>  / •   -</del>	CN1	Cohen, M.H.; Neale, R.G.; Paskin, A., A model for an amorphous semiconductor memory
		0.11	device, J. Non-Cryst. Solids 8-10 (1972) 885-891.
	<del>/ . -</del>	CO1	Croitoru, N.; Lazarescu, M.; Popescu, C.; Telnic, M.; and Vescan, L., Ohmic and non-ohmic
	Y Y		
	<del>1 - , </del> -	004	conduction in some amorphous semiconductors, J. Non-Cryst. Solids 8-10 (1972) 781-786.
	7	CP1	Dalven, R.; Gill, R., Electrical properties of beta-Ag2Te and beta-Ag2Se from 4.2 to 300K, J.
	<del> -/ -</del>	001	Appl. Phys. 38 (1967) 753-756.
	<del>-/</del>	CQ1	Davis, E.A., Semiconductors without form, Search 1 (1970) 152-155.
-	1 <i>/ 1</i>	CR1	Dearnaley, G.; Stoneham, A.M.; Morgan, D.V., Electrical phenomena in amorphous oxide
	<del>   </del>	I	films, Rep. Prog. Phys. 33 (1970) 1129-1191.
	/[	CS1	Dejus, R.J.; Susman, S.; Volin, K.J.; Montague, D.G.; Pric , D.L., Structure of Vitreous Ag-Ge-
	1-12-		Se, J. Non-Cryst. Solids 143 (1992) 162-180.
	14 ,	CT1	den Boer, W., Threshold switching in hydrogenated amorphous silicon, Appl. Phys. Lett. 40
	عصريا	Í	(1982) 812-813.

PTO/SB/088 (10-01)
Approved for use through 10/31/2002.OMB 0651-0031
U. S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Subs	stitute for form 1449B/P1	το		Complete if Known		
				Application Number	10/618,824	
IN	<b>FORMATIO</b>	N DIS	CLOSURE	Filing Date	July 14, 2003	
S	TATEMENT	BY AF	PPLICANT	First Named Inventor	Terry L. Gilton	
				Group Art Unit	N/A 2823	
	(use as many s	sheets as ne	cessary)	Examiner Name	Not Yet Assigned H. Lee	
Sheet	7	of	12	Attorney Docket Number	M4065.1006/P1006-A	

				_
	<del>.</del> /	, CU1	Drusedau, T.P.; Panckow, A.N.; Klabunde, F., The hydrogenated amorphous silicon/nanodisperse metal (SIMAL) system-Films of unique electronic properties, J. Non-Cryst. Solids 198-200 (1996) 829-832.	
	•	CV1	El Bouchairi, B.; Bernede, J.C.; Burgaud, P., Properties of Ag2-xSe1+x/n-Si diodes, Thin Solid Films 110 (1983) 107-113.	
	1	CW1	El Gharras, Z.; Bourahla, A.; Vautier, C., Role of photoinduced defects in amorphous GexSe1-x photoconductivity, J. Non-Cryst. Solids 155 (1993) 171-179.	
	1	CX1	El Ghrandi, R.; Calas, J.; Galibert, G.; Averous, M., Silver photodissolution in amorphous chalcogenide thin films, Thin Solid Films 218 (1992)259-273.	
	1	CY1	El Ghrandi, R.; Calas, J.; Galibert, G., Ag dissolution kinetics in amorphous GeSe5.5 thin films from "in-situ" resistance measurements vs time, Phys. Stat. Sol. (a) 123 (1991) 451-460.	
	1	CZ1	El-kady, Y.L., The threshold switching in semiconducting glass Ge21Se17Te62, Indian J. Phys. 70A (1996) 507-516.	
٦	*	CA2	Elliott, S.R., A unified mechanism for metal photodissolution in amorphous chalcogenide materials, J. Non-Cryst. Solids 130 (1991) 85-97.	
	"	CB2	Elliott, S.R., Photodissolution of metals in chalcogenide glasses: A unified mechanism, J. Non-Cryst. Solids 137-138 (1991) 1031-1034.	
	•	CC2	Elsamanoudy, M.M.; Hegab, N.A.; Fadel, M., Conduction mechanism in the pre-switching state of thin films containing Te As Ge Si, Vacuum 46 (1995) 701-707.	
	1	CD2	El-Zahed, H.; El-Korashy, A., Influence of composition on the electrical and optical properties of Ge20BixSe80-x films, Thin Solid Films 376 (2000) 236-240.	
	*	CE2	Fadel, M., Switching phenomenon in evaporated Se-Ge-As thin films of amorphous chalcogenide glass, Vacuum 44 (1993) 851-855.	
	*	CF2	Fadel, M.; El-Shair, H.T., Electrical, thermal and optical properties of Se75Ge7Sb18, Vacuum 43 (1992) 253-257.	
	•	CG2	Feng, X.; Bresser, W.J.; Boolchand, P., Direct evidence for stiffness threshold in Chalcogenide glasses, Phys. Rev. Lett. 78 (1997) 4422-4425.	
		CH2	Feng, X.; Bresser, W.J.; Zhang, M.; Goodman, B.; Boolchand, P., Role of network connectivity on the elastic, plastic and thermal behavior of covalent glasses, J. Non-Cryst. Solids 222 (1997) 137-143.	
	1	CI2	Fischer-Colbrie, A.; Bienenstock, A.; Fuoss, P.H.; Marcus, M.A., Structure and bonding in photodiffused amorphous Ag-GeSe2 thin films, Phys. Rev. B 38 (1988) 12388-12403.	
	İ	CJ2	Fleury, G.; Hamou, A.; Viger, C.; Vautier, C., Conductivity and crystallization of amorphous selenium, Phys. Stat. Sol. (a) 64 (1981) 311-316.	
	Ī	CK2	Fritzsche, H, Optical and electrical energy gaps in amorphous semiconductors, J. Non-Cryst. Solids 6 (1971) 49-71.	_
	Î	CL2	Fritzsche, H., Electronic phenomena in amorphous semiconductors, Annual Review of Materials Science 2 (1972) 697-744.	
	*	CM2	Gates, B.; Wu, Y.; Yin, Y.; Yang, P.; Xia, Y., Single-crystalline nanowires of Ag2Se can be synthesized by templating against nanowires of trigonal Se, J. Am. Chem. Soc. (2001) currently ASAP.	
	•	CN2	Gosain, D.P.; Nakamura, M.; Shimizu, T.; Suzuki, M.; Okano, S., Nonvolatile memory based on reversible phase transition phenomena in telluride glasses, Jap. J. Appl. Phys. 28 (1989) 1013-1018.	_
	•	CO2	Guin, JP.; Rouxel, T.; Keryvin, V.; Sangleboeuf, JC.; Serre, I.; Lucas, J., Indentation creep of Ge-Se chalcogenide glasses below Tg: elastic recovery and non-Newtonian flow, J. Non-Cryst. Solids 298 (2002) 260-269.	_
	•	CP2	Guin, JP.; Rouxel, T.; Sangleboeuf, JC; Melscoet, I.; Lucas, J., Hardness, toughness, and scratchability of germanium-selenium chalcogenide glasses, J. Am. Ceram. Soc. 85 (2002) 1545-52.	
	•	CQ2	Gupta, Y.P., On electrical switching and memory effects in amorphous chalcogenides, J. Non-	_

PTO/SB/08B (10-01)
Approved for use through 10/31/2002.OMB 0651-0031
U. S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitu	ute for form 1449B/	/PTO	<u>-</u>	Complete If Known		
0000000	3.0 10/10/11/14/10/2/			Application Number	10/618,824	
INF	ORMATIC	ON D	ISCLOSURE	Filing Date	July 14, 2003	
STA	ATEMEN	T BY	APPLICANT	First Named Inventor	Terry L. Gilton	
				Group Art Unit	N/A 2823	
	(use as man	y sheets a	is necessary)	Examiner Name	Not Yet Assigned H Lee	
heet	8	of	12	Attorney Docket Number	M4065 1006/P1006-A	

		Cryst. Sol. 3 (1970) 148-154.
•	CR2	Haberland, D.R.; Stiegler, H., New experiments on the charge-controlled switching effect in
ì		amorphous semiconductors, J. Non-Cryst. Solids 8-10 (1972) 408-414.
• ,	CS2	Haifz, M.M.; Ibrahim, M.M.; Dongol, M.; Hammad, F.H., Effect of composition on the structure
1 /		and electrical properties of As-Se-Cu glasses, J. Apply. Phys. 54 (1983) 1950-1954.
+1	CT2	Hajto, J.; Rose, M.J.; Osborne, I.S.; Snell, A.J.; Le Comber, P.G.; Owen, A.E., Quantization
1 1		effects in metal/a-Si:H/metal devices, Int. J. Electronics 73 (1992) 911-913.
*	CU2	Hajto, J.; Hu, J.; Snell, A.J.; Turvey, K.; Rose, M., DC and AC measurements on metal/a-
1 1		Si:H/metal room temperature quantised resistance devices, J. Non-Cryst. Solids 266-269
1 1		(2000) 1058-1061.
*	CV2	Hajto, J.; McAuley, B.; Snell, A.J.; Owen, A.E., Theory of room temperature quantized
1 1	1	resistance effects in metal-a-Si:H-metal thin film structures, J. Non-Cryst. Solids 198-200
	1	(1996) 825-828.
* 1	CW2	Hajto, J.; Owen, A.E.; Snell, A.J.; Le Comber, P.G.; Rose, M.J., Analogue memory and
1		ballistic electron effects in metal-amorphous silicon structures, Phil. Mag. B 63 (1991) 349-
1		1369.
•	CX2	Hayashi, T.; Ono, Y.; Fukaya, M.; Kan, H., Polarized memory switching in amorphous Se film,
1	L	Japan. J. Appl. Phys. 13 (1974) 1163-1164.
*	CY2	Hegab, N.A.; Fadel, M.; Sedeek, K., Memory switching phenomena in thin films of
		chalcogenide semiconductors, Vacuum 45 (1994) 459-462.
4	CZ2	Helbert et al., Intralevel hybrid resist process with submicron capability, SPIE Vol. 333
		SUBMICRON LITHOGRAPHY, pp. 24-29 (1982).
*	CA3	Hilt, DISSERTATION: Materials characterization of Silver Chalcogenide Programmable
		Metalization
		Cells, Arizona State University, pp. Title page-114 (UMI Company, May 1999).
*	CB3	Holmquist et al., Reaction and Diffusion in Silver-Arsenic Chalcogenide Glass Systems, 62 J. AMER.
		CERAM. SOC., No. 3-4, pp. 183-188 (March-April 1979).
	CC3	Hong, K.S.; Speyer, R.F., Switching behavior in II-IV-V2 amorphous semiconductor systems,
-	1 000	J. Non-Cryst. Solids 116 (1990) 191-200.  Hosokawa, S., Atomic and electronic structures of glassy GexSe1-x around the stiffness
	CD3	threshold composition, J. Optoelectronics and Advanced Materials 3 (2001) 199-214.
<b>—</b>	CE3	Hu, J.; Snell, A.J.; Hajto, J.; Owen, A.E., Constant current forming in Cr/p+a-/Si:H/V thin film
	CES	devices, J. Non-Cryst. Solids 227-230 (1998) 1187-1191.
<del></del>	CF3	Hu, J.; Hajto, J.; Snell, A.J.; Owen, A.E.; Rose, M.J., Capacitance anomaly near the metal-
1		non-metal transition in Cr-hydrogenated amorphous Si-V thin-film devices, Phil. Mag. B. 74
		(1996) 37-50.
	CG3	Hu, J.; Snell, A.J.; Hajto, J.; Owen, A.E., Current-induced instability in Cr-p+a-Si:H-V thin film
		devices, Phil. Mag. B 80 (2000) 29-43.
*	СНЗ	Huggett et al., Development of silver sensitized germanium selenide photoresist by reactive
	1 13.13	sputter etching in SF6, 42 Appl. Phys. Lett., No. 7, pp. 592-594 (April 1983).
	CI3	lizima, S.; Sugi, M.; Kikuchi, M.; Tanaka, K., Electrical and thermal properties of
	0.0	semiconducting glasses As-Te-Ge, Solid State Comm. 8 (1970) 153-155.
1	CJ3	Ishikawa, R.: Kikuchi, M., Photovoltaic study on the photo-enhanced diffusion of Ag in
$\mathbf{I}$		amorphous films of Ge2S3, J. Non-Cryst. Solids 35 & 36 (1980) 1061-1066.
•	СКЗ	lyetomi, H.; Vashishta, P.; Kalia, R.K., Incipient phase separation in Ag/Ge/Se glasses:
		clustering of Ag atoms, J. Non-Cryst. Solids 262 (2000) 135-142.
•	CL3	Jones, G.; Collins, R.A., Switching properties of thin selenium films under pulsed bias, Thin
		Solid Films 40 (1977) L15-L18.
•	СМЗ	Joullie, A.M.; Marucchi, J., On the DC electrical conduction of amorphous As2Se7 before
		switching, Phys. Stat. Sol. (a) 13 (1972) K105-K109.
•	CN3	Joullie, A.M.; Marucchi, J., Electrical properties of th amorphous alloy As2Se5, Mat. Res.

not

PTO/SB/08B (10-01)

Approved for use through 10/31/2002.0MB 0651-0031

U. S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Complete If Known

Sut	stitute for form 1449B/	PTO		Complete if Known		
"	7,531.01.01.11.11.11.11.11.11.11.11.11.11.11	. , .		Application Number	10/618,824	
l in	<b>IFORMATIO</b>	ON DIS	CLOSURE	Filing Date	July 14, 2003	
l s	TATEMEN	ГВҮ А	PPLICANT	First Named Inventor	Terry L. Gilton	
				Group Art Unit	N/A 2823	
	(use as many	sheets as r	necessary)	Examiner Name	Not Yot Assigned H Lee	
Sheet	9	of	12	Attorney Docket Number	M4065.1006/P1006-A	

		Bull. 8 (1973) 433-442.
•	CO3	Kaplan, T.; Adler, D., Electrothermal switching in amorphous semiconductors, J. Non-Cryst. Solids 8-10 (1972) 538-543.
	CP3	Kawaguchi et al., Mechanism of photosurface deposition, 164-166 J. Non-CRYST. SOLIDS, pp. 1231-1234 (1993).
•	CQ3	Kawaguchi, T.; Maruno, S.; Elliott, S.R., Optical, electrical, and structural properties of amorphous Ag-Ge-S and Ag-Ge-Se films and comparison of photoinduced and thermally induced phenomena of both systems, J. Appl. Phys. 79 (1996) 9096-9104.
*	CR3	Kawaguchi, T.; Masui, K., Analysis of change in optical transmission spectra resulting from Ag photodoping in chalcogenide film, Japn. J. Appl. Phys. 26 (1987) 15-21.
*	CS3	Kawasaki, M.; Kawamura, J.; Nakamura, Y.; Aniya, M., Ionic conductivity of Agx(GeSe3)1-x (0<=x<=0.571) glasses, Solid state lonics 123 (1999) 259-269.
*	СТЗ	Kluge, G.; Thomas, A.; Klabes, R.; Grotzschel, R., Silver photodiffusion in amorphous GexSe100-x, J. Non-Cryst. Solids 124 (1990) 186-193.
•	CU3	Kolobov, A.V., On the origin of p-type conductivity in amorphous chalcogenides, J. Non-Cryst. Solids 198-200 (1996) 728-731.
	CV3	Kolobov, A.V., Lateral diffusion of silver in vitreous chalcogenide films, J. Non-Cryst. Solids 137-138 (1991) 1027-1030.
	CW3	Korkinova, Ts.N.; Andreichin, R.E., Chalcogenide glass polarization and the type of contacts, J. Non-Cryst. Solids 194 (1996) 256-259.
*	СХЗ	Kotkata, M.F.; Afif, M.A.; Labib, H.H.; Hegab, N.A.; Abdel-Aziz, M.M., Memory switching in amorphous GeSeTI chalcogenide semiconductor films, Thin Solid Films 240 (1994) 143-146.
*	CY3	Kozicki et al., Silver incorporation in thin films of selenium rich Ge-Se glasses, International Congress on Glass, Volume 2, Extended Abstracts, July 2001, pgs. 8-9.
	CZ3	Michael N. Kozicki, 1. Programmable Metallization Cell Technology Description, February 18, 2000
*	CA4	Michael N. Kozicki, Axon Technologies Corp. and Arizona State University, Presentation to Micron Technology, Inc., April 6, 2000
*	CB4	Kozicki et al., Applications of Programmable Resistance Changes In Metal-Doped Chalcogenides, Electrochemical Society Proceedings, Volume 99-13, 1999, pgs. 298-309.
•	CC4	Kozicki et al., Nanoscale effects in devices based on chalcogenide solid solutions, Superlattices and Microstructures, Vol. 27, No. 516, 2000, pgs. 485-488.
*	CD4	Kozicki et al., Nanoscale phase separation in Ag-Ge-Se glasses, Microelectronic Engineering 63 (2002) pgs 155-159.
•	CE4	Lakshminarayan, K.N.; Srivastava, K.K.; Panwar, O.S.; Dumar, A., Amorphous semiconductor devices: memory and switching mechanism, J. Instn Electronics & Telecom. Engrs 27 (1981) 16-19.
•	CF4	Lal, M.; Goyal, N., Chemical bond approach to study the memory and threshold switching chalcogenide glasses, Indian Journal of pure & appl. phys. 29 (1991) 303-304.
•	CG4	Leimer, F.; Stotzel, H.; Kottwitz, A., Isothermal electrical polarisation of amorphous GeSe films with blocking Al contacts influenced by Poole-Frenkel conduction, Phys. Stat. Sol. (a) 29 (1975) K129-K132.
•	CH4	Leung, W.; Cheung, N.; Neureuther, A.R., Photoinduced diffusion of Ag in GexSe1-x glass, Appl. Phys. Lett. 46 (1985) 543-545.
	CI4	Matsushita, T.; Yamagami, T.; Okuda, M., Polarized memory effect observed on Se-SnO2 system, Jap. J. Appl. Phys. 11 (1972) 1657-1662.
*	CJ4	Matsushita, T.; Yamagami, T.; Okuda, M., Polarized memory effect observed on amorphous sel nium thin films, Jpn. J. Appl. Phys. 11 (1972) 606.
-	CK4	Mazurier, F.; Levy, M.; Souquet, J.L, Reversible and irreversible el ctrical switching in TeO2- V2O5 bas diglasses, Journal di Physiqu IV 2 (1992) C2-185 - C2-188.
•	CL4	McHardy et al., The dissolution of metals in amorphous chalcogenides and the effects o

not

PTO/SB/08B (10-01)

Approved for use through 10/31/2002.OMB 0851-0031

U. S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Sub	stitute for form 1449B/F	210		Complete if Known		
		, •		Application Number	10/618,824	
IN	FORMATIC	ON DISC	CLOSURE	Filing Date	July 14, 2003	
S	TATEMENT	BY AF	PLICANT	First Named Inventor	Terry L. Gilton	
_				Group Art Unit	N/A 2823	
	(use as many	sheets as ne	cessary)	Examiner Name	Net Yet Assigned H Lee	
Sheet	10	of	12	Attorney Docket Number	M4065.1006/P1006-A	

-			
L			electron and ultraviolet radiation, 20 J. Phys. C.: Solid State Phys., pp. 4055-4075 (1987)f
	•	CM4	Messoussi, R.; Bernede, J.C.; Benhida, S.; Abachi, T.; Latef, A., Electrical characterization of
L	^	l	M/Se structures (M=Ni,Bi), Mat. Chem. And Phys. 28 (1991) 253-258.
	•/	CN4	Mitkova, M.; Boolchand, P., Microscopic origin of the glass forming tendency in chalcogenides
1	- 1		and constraint theory, J. Non-Cryst. Solids 240 (1998) 1-21.
Ī	•	CO4	Mitkova, M.; Kozicki, M.N., Silver incorporation in Ge-Se glasses used in programmable
	- 1	i	metallization cell devices, J. Non-Cryst. Solids 299-302 (2002) 1023-1027.
	1	CP4	Miyatani, Sy., Electronic and ionic conduction in (AgxCu1-x)2Se, J. Phys. Soc. Japan 34
	- 1	•	(1973) 423-432.
ľ	<del>- i -</del>	CQ4	Miyatani, Sy., Electrical properties of Ag2Se, J. Phys. Soc. Japan 13 (1958) 317.
ł	<del></del>	CR4	Miyatani, Sy., Ionic conduction in beta-Ag2Te and beta-Ag2Se, Journal Phys. Soc. Japan 14
	- 1	10117	(1959) 996-1002.
ŀ	<del></del>	CS4	Mott, N.F., Conduction in glasses containing transition metal ions, J. Non-Cryst. Solids 1
•		1034	(1968) 1-17.
	<del>-</del>	CT4	Nakayama, K.; Kitagawa, T.; Ohmura, M.; Suzuki, M., Nonvolatile memory based on phase
not	ĺ	1014	
'''		0114	transitions in chalcogenide thin films, Jpn. J. Appl. Phys. 32 (1993) 564-569.
consider	ĺ	CU4	Nakayama, K.; Kojima, K.; Hayakawa, F.; Imai, Y.; Kitagawa, A.; Suzuki, M., Submicron
İ			nonvolatile memory cell based on reversible phase transition in chalcogenide glasses, Jpn. J.
		0.44	Appl. Phys. 39 (2000) 6157-6161.
- a. a. WU	/ [	CV4	Nang, T.T.; Okuda, M.; Matsushita, T.; Yokota, S.; Suzuki, A., Electrical and optical
ا بمومالترا)		01444	parameters of GexSe1-x amorphous thin films, Jap. J. App. Phys. 15 (1976) 849-853.
· I	Ĭ	CW4	Narayanan, R.A.; Asokan, S.; Kumar, A., Evidence concerning the effect of topology on
1			electrical switching in chalcogenide network glasses, Phys. Rev. B 54 (1996) 4413-4415.
	Ī	CX4	Neale, R.G.; Aseltine, J.A., The application of amorphous materials to computer memories,
Į.			IEEE transactions on electron dev. Ed-20 (1973) 195-209.
	İ	CY4	Ovshinsky S.R.; Fritzsche, H., Reversible structural transformations in amorphous
			semiconductors for memory and logic, Mettalurgical transactions 2 (1971) 641-645.
	İ	CZ4	Ovshinsky, S.R., Reversible electrical switching phenomena in disordered structures, Phys.
			Rev. Lett. 21 (1968) 1450-1453.
	1	CA5	Owen, A.E.; LeComber, P.G.; Sarrabayrouse, G.; Spear, W.E., New amorphous-silicon
ļ		.	electrically programmable nonvolatile switching device, IEE Proc. 129 (1982) 51-54
	1	CB5	Owen, A.E.; Firth, A.P.; Ewen, P.J.S., Photo-induced structural and physico-chemical changes
		1	in amorphous chalcogenide semiconductors, Phil. Mag. B 52 (1985) 347-362.
	i	CC5	Owen, A.E.; Le Comber, P.G.; Hajto, J.; Rose, M.J.; Snell, A.J., Switching in amorphous
į			devices, Int. J. Electronics 73 (1992) 897-906.
ſ	1	CD5	Owen et al., Metal-Chalcogenide Photoresists for High Resolution Lithography and Sub-
į		1	Micron Structures, Nanostructure Physics and Fabrication, pp. 447-451 (M. Reed ed. 1989).
ľ	1	CE5	Pearson, A.D.; Miller, C.E., Filamentary conduction in semiconducting glass diodes, App.
}			Phys. Lett. 14 (1969) 280-282.
İ	*	CF5	Pinto, R.; Ramanathan, K.V., Electric field induced memory switching in thin films of the
ŀ		1	chalcogenide system Ge-As-Se, Appl. Phys. Lett. 19 (1971) 221-223.
Ī	*	CG5	Popescu, C., The effect of local non-uniformities on thermal switching and high field behavior
			of structures with chalcogenide glasses, Solid-state electronics 18 (1975) 671-681.
į	•	CH5	Popescu, C.; Croitoru, N., The contribution of the lateral thermal instability to the switching
j			phenomenon, J. Non-Cryst. Solids 8-10 (1972) 531-537.
1	•	CI5	Popov, A.I.; Geller, I.KH.; Shemetova, V.K., Memory and threshold switching effects in
		1	amorphous selenium, Phys. Stat. Sol. (a) 44 (1977) K71-K73.
İ	•	CJ5	Prakash, S.; Asokan, S.; Ghare, D.B., Easily reversible memory switching in Ge-As-Te
		1-7-	glasses, J. Phys. D: Appl. Phys. 29 (1996) 2004-2008.
	<del></del>	CK5	Rahman, S.; Sivarama Sastry, G., El ctronic switching in G -Bi-Se-T glasses, Mat. Sci. and
		ICNO	

Approved for use through 10/31/2002. OMB 0651-0031

U. S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

St	ubstitute for form 1449B/	PTO		Complete if Known			
				Application Number	10/618,824		
11	NFORMATION	ON D	ISCLOSURE	Filing Date	July 14, 2003		
9	STATEMEN <sup>*</sup>	T BY	APPLICANT	First Named Inventor	Terry L. Gilton		
				Group Art Unit			
	(use as many	y sheets	as necessary)	Examiner Name	Not Yet Assigned H Lee		
Sheet	11	of	12	Attorney Docket Number	M4065.1006/P1006-A		

	•	CL5	Ramesh, K.; Asokan, S.; Sangunni, K.S.; Gopal, E.S.R., Electrical Switching in germanium telluride glasses doped with Cu and Ag, Appl. Phys. A 69 (1999) 421-425.
	*	CM5	Rose,M.J.;Hajto,J.;Lecomber,P.G.;Gage,S.M.;Choi,W.K.;Snell,A.J.;Owen,A.E., Amorphous
			silicon analogue memory devices, J. Non-Cryst. Solids 115 (1989) 168-170.
	•	CN5	Rose, M.J.; Snell, A.J.; Lecomber, P.G.; Hajto, J.; Fitzgerald, A.G.; Owen, A.E., Aspects of non-volatility in a -Si: H memory devices, Mat. Res. Soc. Symp. Proc. V 258, 1992, 1075-1080.
	•	CO5	Schuocker, D.; Rieder, G., On the reliability of amorphous chalcogenide switching devices, J. Non-Cryst. Solids 29 (1978) 397-407.
		CP5	Sharma, A.K.; Singh, B., Electrical conductivity measurements of evaporated selenium films in
	İ		vacuum, Proc. Indian Natn. Sci. Acad. 46, A, (1980) 362-368.
	•	CQ5	Sharma, P., Structural, electrical and optical properties of silver selenide films, Ind. J. Of pure and applied phys. 35 (1997) 424-427.
not	•	CR5	Shimizu et al., The Photo-Erasable Memory Switching Effect of Ag Photo-Doped Chalcogenide Glasses, 46 B. CHEM SOC. JAPAN, No. 12, pp. 3662-3365 (1973).
V-	•	CS5	Snell, A.J.; Lecomber, P.G.; Hajto, J.; Rose, M.J.; Owen, A.E.; Osborne, I.L., Analogue
not			memory effects in metal/a-Si:H/metal memory devices, J. Non-Cryst. Solids 137-138 (1991) 1257-1262.
\   .	. 2	CT5	Snell, A.J.; Hajto, J.; Rose, M.J.; Osborne, L.S.; Holmes, A.; Owen, A.E.; Gibson, R.A.G.,
Course			Analogue memory effects in metal/a-Si:H/metal thin film structures, Mat. Res. Soc. Symp. Proc. V 297, 1993, 1017-1021.
•	•	CU5	Steventon, A.G., Microfilaments in amorphous chalcogenide memory devices, J. Phys. D: Appl. Phys. 8 (1975) L120-L122.
	*	CV5	Steventon, A.G., The switching mechanisms in amorphous chalcogenide memory devices, J. Non-Cryst. Solids 21 (1976) 319-329.
	+	CW5	Stocker, H.J., Bulk and thin film switching and memory effects in semiconducting chalcogenide glasses, App. Phys. Lett. 15 (1969) 55-57.
	•	CX5	Tanaka, K., lonic and mixed conductions in Ag photodoping process, Mod. Phys. Lett B 4 (1990) 1373-1377.
		CY5	Tanaka, K.; lizima, S.; Sugi, M.; Okada, Y.; Kikuchi, M., Thermal effects on switching phenomenon in chalcogenide amorphous semiconductors, Solid State Comm. 8 (1970) 387-
		H	389.
	•	CZ5	Thornburg, D.D., Memory switching in a Type I amorphous chalcogenide, J. Elect. Mat. 2 (1973) 3-15.
	*	CA6	Thornburg, D.D., Memory switching in amorphous arsenic triselenide, J. Non-Cryst. Solids 11 (1972) 113-120.
	•	СВ6	Thornburg, D.D.; White, R.M., Electric field enhanced phase separation and memory switching in amorphous arsenic triselenide, Journal(??) (1972) 4609-4612.
	•	CC6	Tichy, L.; Ticha, H., Remark on the glass-forming ability in GexSe1-x and AsxSe1-x systems, J. Non-Cryst. Solids 261 (2000) 277-281.
	•	CD6	Titus, S.S.K.; Chatterjee, R.; Asokan, S., Electrical switching and short-range order in As-Te glasses, Phys. Rev. B 48 (1993) 14650-14652.
		CE6	Tranchant, S.; Peytavin, S.; Ribes, M.; Flank, A.M.; Dexpert, H.; Lagarde, J.P., Silver chalcogenide
			glasses Ag-Ge-Se: Ionic conduction and exafs structural investigation, Transport-structure
			relations in fast ion and mixed conductors Proceedings of the 6th Riso International
			symposium. 9-13 September 1985.
		CF6	Tregouet, Y.; Bernede, J.C., Silver movements in Ag2Te thin films: switching and memory
	,	-	effects, Thin Solid Films 57 (1979) 49-54.
	•	CG6	Uemura, O.; Kameda, Y.; Kokai, S.; Satow, T., Thermally induced crystallization of amorphous
			G 0.4Se0.6, J. Non-Cryst. Solids 117-118 (1990) 219-221.
	•	СН6	Uttecht, R.; Stevenson, H.; Si , C.H.; Grien r, J.D.; Raghavan, K.S., Electric field induced filament formation in As-Te-Ge glass, J. Non-Cryst. Solids 2 (1970) 358-370.
'			

PTO/SB/08B (10-01)

Approved for use through 10/31/2002.OMB 0651-0031

U. S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

U.S. DEPARTMENT OF COMMERCE

U.S. DEPARTMENT OF COMMERCE

Complete if Known

Substitute for form 1449B/PTO				Complete if Known			
		. •		Application Number	10/618,824		
IN	IFORMATIC	ON DISC	CLOSURE	Filing Date	July 14, 2003		
S	TATEMENT	BY AF	PLICANT	First Named Inventor	Terry L. Gilton N/A ンチン3		
	., .,			Group Art Unit			
(use as many sheets as necessary)				Examiner Name	Not Yet Assigned H. Les		
Sheet	12	of	12	Attorney Docket Number	M4065.1006/P1006-A		

-				
	۸	Cl6	Viger, C.; Lefrancois, G.; Fleury, G., Anomalous behaviour of amorphous selenium films, J. Non-Cryst. Solids 33 (1976) 267-272.	
1		CJ6	Vodenicharov, C.; Parvanov,S.; Petkov,P., Electrode-limited currents in the thin-film M-GeSe-M system, Mat. Chem. And Phys. 21 (1989) 447-454.	
	•	CK5	Wang, SJ.; Misium, G.R.; Camp, J.C.; Chen, KL.; Tigelaar, H.L., High-performance Metal/silicide antifuse, IEEE electron dev. Lett. 13 (1992)471-472.	
ه لاړ		CL5	Weirauch, D.F., Threshold switching and thermal filaments in amorphous semiconductors, App. Phys. Lett. 16 (1970) 72-73.	
		СМ6	West, W.C.; Sieradzki, K.; Kardynal, B.; Kozicki, M.N., Equivalent circuit modeling of the Ag As0.24S0.36Ag0.40 Ag System prepared by photodissolution of Ag, J. Electrochem. Soc. 145 (1998) 2971-2974	
	1	CN6	West, W.C., Electrically erasable non-volatile memory via electrochemical deposition of multifractal aggregates, Ph.D. Dissertation, ASU 1998	
	ľ	C06	Zhang, M.; Mancini, S.; Bresser, W.; Boolchand, P., Variation of glass transition temperature, Tg, with average coordination number, <m>, in network glasses: evidence of a threshold behavior in the slope  dTg/d<m>  at the rigidity percolation threshold (<m>=2.4), J. Non-Cryst. Solids 151 (1992) 149-154.</m></m></m>	
		ļ		
		ļ		
		<u></u>		
		1		

		r			· · · · · · · · · · · · · · · · · · ·
Examiner	1//2 1	Min	7	Date	2/12/2011
Signature	Kelley	111.614	Leo	Considered	//-/-
		<del>5 77 - 1</del>			

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&#</sup>x27;Applicant's unique citation designation number (optional). <sup>3</sup>Applicant is to place a check mark here if English language Translation is attached.